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THE FINANCIALIZATION OF THE SOUTH AFRICAN ECONOMY AND ITS IMPLICATIONS FOR EMPLOYMENT

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DECLARATION

This research report titled: The Financialization of the South African Economy and its Implications for Employment, is submitted in partial fulfilment of the requirements for the Master of Commerce degree at the University of Witwatersrand. I, Mncedisi Siphosethu Mvelase, declared that the work contained in this paper is my own and that which is not is referenced accordingly.

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ABSTRACT

After 20 years in existence democratic South Africa is at the crossroads while people lives have changed significantly after 1994, the country has faced increasing levels of unemployment and inequality. Drawing from the Keynesian theory of employment and recent financialization literature, this paper looks at the trends in financial income as a share of profits in the mining sector and how this has affected real investment in the sector and linking with the theory we look at how his behaviour has contributed to the employment levels in the sector. This retrospective look at the mining sector is done in order to pick trends that might give us better insight for policy interventions in the sector in order to create employment opportunities for the population going forward

Keywords: Financialization, Investment, Mining sector, Employment

CHAPTER ONE

INTRODUCTION

"The outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes." (Keynes, 1936: 372).

After 20 years of democracy South Africa seems to be at a crossroads, while the lives of ordinary South Africans has changed significantly over the past two decades the country still faces significant challenges economically, chief among those is unemployment and inequality. The South African government has failed to raise employment levels in the post apartheid era. In actual fact unemployment has risen in the post apartheid era, in a national survey done in 1994 unemployment was estimated to be 15.6 percent, and it now sits around 25 percent (Banerjee et al, 2008: 4). One reason for this significant increase in unemployment is the increase in labour force participation especially with women participation in the market (Banerjee et al, 2008: 5). Majority of suggestions on how to reduce unemployment speaks to the change in policies that support the supply side of the current economic structure. Unemployment is mostly blamed to the low skill level of the people eligible to work, the stringent labour laws, such as collective bargaining, that give more power to the union than the employer. The South African government through the Treasury also identifies the shortage of skills as a large contributory factor to the high levels of unemployment, youth unemployment specifically (Treasury, 2011: 5). "The shortfalls in the education system constrain the prospects of young people, leaving them ill-equipped for the workplace, in many cases without the basic competencies." (Treasury, 2011: 10) The perception in this report is that companies find it riskier to hire the youth with low levels of education and experience. Therefore in order to rectify this, the treasury (2011) proposed the youth wage subsidy. For an industry (mining) that is contracting at fast pace such as mining these suggestions becomes irrelevant because the industry itself is not creating enough job opportunities. Therefore you can have all the skills one wants but the most important factor in increasing employment are job opportunities. These arguments then speak to the supply side of the labour market and the policy propositions are based on the up-skilling or making labour more attractive to business. It is argued that unemployment in this country is structural rather than transitional; this means that there is little chance of lowering the unemployment rate without any external interventions through policy. The question remains, what policy interventions are conducive for reducing unemployment rate? This paper is not going to directly answer this question but seeks to show a relationship between real capital accumulation and employment. This can then informs an approach towards reducing unemployment, but this is not a role taken on by this paper.

It has been argued that an important reason for the inability of the South African economy to create adequate levels of employment is embedded in an approach to macroeconomic policy that does not take into account financialization of the economy which is the growth in financial activities and motives at the expense of real activities of NFCs (Ashman et al, 2013). The macroeconomic policy approach in post apartheid South Africa has been characterized as neoliberal and it is argued that it has facilitated the financialization of the economy. Stockhammer (2010) provides a broad definition of financialization as “the term used to summarize a broad set of changes in the relation between the ‘financial’ and ‘real’ sectors which give greater weight than heretofore to financial actors or motives.” Financialization represents a change in the capitalist accumulation process, a change to a finance-dominated accumulation process (Stockhammer, 2007). Stockhammer (2007) argues that the finance-dominated accumulation trajectory is not sustainable because it limits the growth of the economy because it opens up the economy to the vulnerabilities of the financial sector. But also financialization slows down the pace of accumulation therefore affecting employment trends (Stockhammer, 2007). This strand of the literature argues that this finance-led pattern of accumulation has drastically reduced the ability for employment creation in economies where non-financial corporations (hereafter NFCs) have become financialized (Orhangazi, 2008, Epstein 2005, Stockhammer 2007).

There has been an increasing amount of literature on the financialization of the South African economy, even though still relatively small (Ashman et al, 2011a, 2011b, 2013, Fine, 2013, McKenzie, 2013, Mohamed, 2009). Through the establishment of a relationship between employment and real capital accumulation, this paper will then look at the claims by financialization proponents and establish if there is a connection with the claims of slowdown in accumulation. In establishing the relationship between real capital accumulation and employment, this paper subscribes to the notion that investment in new productive capacity will lead to job creation.[1] By investment in new productive capacity this paper simply means buying new machinery to expand output. But this idea has not gained popularity in economic

[1] This is said with the awareness that investment in new machinery may replace labour in the medium term but expansion of capital stock of the firm creates job opportunities. For further reading on the subject (Rowthorn 1994)

circles as many, mainly mainstream/orthodox, economists reject this idea and believe that employment should be created on existing capital stock through intervention in the supply-side of the labour market with policy measures such as education and labour market deregulation (Rowthorn, 1994). Rowthorn (1994) argues that there is a link between unemployment and the lack of investment into new capital stock especially with the manufacturing sector; this is in the context of Western Europe economies. These ideas will be fleshed out more thoroughly in the next chapter when the paper reviews the literature.

1.1 RESEARCH AIMS AND OBJECTIVES

This paper's main aim is to examine if there has been an increase in financial income as a share of profits in the mining sector and how this might impact on employment trends in the sector through a change in the investment behaviour. This paper also aims to contribute to the literature on financialization by providing original research on the mining sector in a developing country.

The reason why this paper focuses on the mining sector as the centre of this investigation is because mining has been a central feature in the development of the South African economy. It is a position of this paper that with large reserves still to be exploited in South Africa this sector still has potential to create large-scale employment for the population and linkages for economic growth can be realized. Therefore it is imperative for an emerging economy like South Africa to maximize the gains that potentially might be offered by this sector.

1.2 RESEARCH PROBLEM AND QUESTIONS

Current literature on the financialization of the South African economy shows that investment and employment have been negatively affected by financialization (Ashman et al, 2011; Mohamed, 2010). The growth in output of the financial sector since 1994 in South Africa, in terms of investment and employment has been accompanied by credit-fuelled consumption (Ashman et al, 2013) and capital flight (Mohamed, 2005), these might not be new problems but these authors argue that these problems have exacerbated in the post apartheid era. This paper explores the following questions:

1. Has financial income as a share of profits in the mining sector increased?
2. Is there relationship between the trends of financial income and investment into capital stock of the mining sector?

3. How have the trends in investment into capital stock affected employment?

In answering the questions above this paper is taking a sectorial approach which focuses the analysis on the mining sector. The mining sector has played a central role in the development of the South African economy and continues to play a significant role currently, even though reduced. South Africa as the wealthiest country in terms of its mineral reserves the mining sector still offers a lot of potential economically. The sector specific approach that this paper adopts is important because it allows for an opportunity to control the sector specific effects. This approach also removes biases associated with the aggregation across the economy. In an economy like that of South Africa with great inequalities aggregation does not really give the correct behaviour of all the actors in the economy.

In order to answer the first question the paper uses a methodology provided by Krippner (2005) where she constructs a ratio of what she terms as portfolio income, which is financial income, and corporate cash flow. This ratio reflects the significance of financial income as a share of the income received by the corporations. Krippner (2005) uses this methodology in order to prove financialization of the NFCs in the USA. What this methodology allows us to do is to reflect the investment behaviour of the NFCs and this is the reason why this paper adopts it. In the third chapter of this paper this methodology is thoroughly fleshed out and how it has been adopted for the South African economy.

This paper contains five chapters; the next chapter is the review of the literature that will provide us with the theoretical underpinnings for the investigations done by this paper. This section will also introduce the reader to literature on financialization and how it is changing patterns of capital accumulation in the global capitalist economy. Chapter three is a continuation of the review of the literature but in this chapter the literature is on the financialization of the South African economy and how it is affecting the investment behaviour of the firms. This chapter looks at the data provided by the authors in order to substantiate their financialization claim. Using a method provided by Krippner (2005) chapter four investigates whether income accrued from financial activities has increased in significance as a share of profits in the South African mining. The paper then compares the trends picked up from financial income to investment in fixed capital stock and employment in this sector. This is a departure point from evidence provided by authors in chapter three of different channels of financialization in the economy as a whole. Chapter five concludes the paper providing a way forward from the evidence provided by chapter four.

CHAPTER TWO

LITERITURE REVIEW

2.1 THEORETICAL UNDERPINNINGS

Theoretically this paper is taking the baton from Keynes who was one of the first economists to point out a relationship between investment and employment. The working definition for unemployment is taken from Keynes: "*Men are involuntarily unemployed if, in the event of a small rise in the price of wage-goods relatively to the money-wage, both the aggregate supply of labour willing to work for the current money-wage and the aggregate demand for it at that wage would be greater than the existing volume of employment*" (Keynes, 1936: 8). In *The General Theory of Employment, Interest and Money* (The General Theory hereafter) Keynes (1936: 8) fundamental classical postulates lead to classical economists' denial of involuntary unemployment and for these economists the only way unemployment can occur is when current crop of job-seeker are not willing to work at the current wage rate. The second classical postulate is the main reason why classical economists draw to this conclusion, and it says: "The utility of the wage when a given volume of labour is employed is equal to the marginal disutility of that amount of employment" (Keynes, 1936: 2). Keynes' (1936) aim in *The General Theory*, that is relevant to this paper, is to 'throw over' the second classical postulate in order to be in a situation where involuntary unemployment is seen as a possibility.

"For unless there is this amount of investment, the receipts of the entrepreneurs will be less than is required to induce them to offer the given amount of employment. It follows, therefore, that, given what we shall call the community's propensity to consume, the equilibrium level of employment, i.e. the level at which there is no inducement to employers as a whole either to expand or to contract employment, will depend on the amount of current investment" (Keynes, 1936: 16).

Keynes (1936) goes on to say "an increase of investment, however small, would set moving a cumulative increase of effective demand until a position of full employment had been reached" Therefore for Keynes the essence of the general theory for employment is when in equilibrium the volume of employment is dependent on the aggregate supply function, the community's propensity to consume and the volume of investment (Keynes, 1936: 17). "The propensity to consume and the rate of new investment determine between the volume of employment…" (Keynes, 1936: 18). What this means is that essentially the level of employment is dependent on effective demand. This then takes Keynes to a point contrary to the classical theory and that is the existence of involuntary unemployment, because an insufficiency in effective demand will bring to a halt any increase in employment before full employment is reached (Keynes, 1936: 18). This is what happens in unequal societies, Keynes (1936) “poverty in the midst of plenty”, the poor community on one hand cannot afford to increase their propensity to consume and this will then affect the richer community’s inducement to invest their wealth and leads to reduction in its actual output (Keynes, 1936: 18). This means that insufficiency in effective demand will inhibit the process of production.

Taking the baton from Keynes (1936) and in order to show involuntary unemployment the definition of unemployment used is based on the number of people actively seeking for work. This is the official definition used by Statistics South Africa even though they also collect statistics for the broader definition of unemployment. Therefore this paper is concerned with the creation of employment opportunities for the people that are seeking for opportunities and are unable to get them. There is not deeper reason why this paper has chosen this definition other than to capture involuntary unemployment.

This is an opportune time for the paper to define what it means by investment. Investment for this paper simply means the purchase of any asset out of income. Investment then involves an increment in capital equipment regardless of whether it’s fixed, working or liquid capital (Keynes, 1936: 41). The point of what capital acquired is more relevant to employment will be discussed later on in this chapter. Keynes allows us to be able to link the level of investment to employment. One thing that we have established from Keynes (1936) is that the level of investment is determined by the level of effective demand which is determined by the income level of the community. When entrepreneurs expect demand will increase they will invest more into new capital stock in order to increase output this will then mean employing more people. Even though there are various factors that interact with each other in a complex manner in order to produce the end result but what the reader must keep in mind is that this is just a general theory of employment and the emphasis should be placed on general.

Now it can be safely said that the argument that this paper is advancing is that investment, or lack thereof, affects the level of employment. Malinvaud (1980) takes the baton from Keynes in his book titled *Profitability and Unemployment* arguing against the assertion that an adequate level of profitability is a precondition to avoid unemployment. He argues “smooth medium-term growth requires an appropriate rate of accumulation of fixed capital” (Malinvaud, 1980: 13). By this assertion Malinvaud (1980) means that growth of productive capacity "should match the growth of full employment demand." Secondly, "existing capacity must be such that its full use implies a demand for labour just equals available labour force" (Malinvaud, 1980: 14). Malinvaud (1980) argues that the appropriate rate of accumulation of fixed capital, in a situation where unemployment exists, is different from the existing one. Malinvaud (1980) argues for the rate of accumulation of fixed capital in the context where prices and wages are not flexible. Therefore society should "aim at a rate of accumulation that makes possible a full employment growth path that would not need prices and remuneration rate to deviate from their feasible long-term trends" (Malinvaud, 1980: 17). The basic argument that Malinvaud advances is that investment in new productive capacity will lead to a rise in the employment rate. Malinvaud's analysis is built around a model similar to Harrod-Domar but in this case he considers a dynamic process where major components are capital accumulation and shifts in income distribution. In advancing this argument the book makes a concession that the subtle assumption of complementarity between new capital and labour neglects the possibility of a substitution especially in the medium-term during capital accumulation (Malinvaud, 1980: 105). Reflecting the substitutability that exists between capital and labour is difficult and there is no simple model that could correctly reflect this relationship (Malinvaud, 1980: 105). It should be admitted earlier on that this paper also relies on this subtle assumption in arguing for the link between investment and employment.

2.2 FINANCIALIZATION AND INVESTMENT

With the theoretical underpinnings of this paper dealt with above, this section of the paper is going to introduce the reader to recent literature which is concerned with financialization. This section of the paper is going to look at financialization and show how this affects investment behaviour of the firms, especially NFCs.

When it comes to financialization it is very important to be clear which meaning one is referring to because there are various ways that this concept can be deployed especially when looking at the literature. The literature on financialization is used to explore the different aspects in the rise of the finance (Krippner, 2008, P: 196). This has actually made the concept a 'Free-for-all' as Krippner (2008) refers to it because different authors have different meanings of this phenomenon. Fine (2013) warns us that financialization is in danger of becoming a 'fuzzword' because of its deployment with different meanings, methods and theories as can be seen from the above illustration. All this fuzziness state of the concept is due to the pervasiveness and diversity of finance itself (Fine, 2013: 5). This has made the use of the concept quite ambiguous; however some authors use the term in order to emphasize the rise of the shareholder value as a mode of corporate governance (Froud et al 2000, Williams 2000, Lazonick and O'Sullivan 2000). These authors highlight the change in the priorities of the managers of corporation from those that emphasize the growth of the firm to that of maximizing shareholder value. This is done through the rewarding of managers through share ownership (Froud et al). Froud et al (2000) emphasise how the shareholder orientation of NFC has had disastrous outcomes for labour in general through restructuring in order to maximize shareholder value. Orhangazi (2008) on the other hand uses the term in order to refer to the increase in the size and the significance of financial markets, transactions and institutions especially within non-financial corporation (NFCs). Krippner (2005) looks at the growth of profits from financial activities in NFCs. She reports that in the USA these profits have grown from 10% in the 1950s to 40% in 2001. For Epstein (2005) the concept means the increasing role of financial motives, financial markets, actors and institutions in the operations of the domestic and international economies. But one realizes that the literature compliments itself in terms of showing the detrimental aspect of the rise of finance. The studies conducted by the above mentioned authors, with exception of Fine who has extensive work on South Africa, have not looked at the case of the South African economy or any economy in the African continent and the developing nations. The focus of the literature has been on the developed nations. The reason for this focus is because these nations have reached a mature stage of financial development and the creativity of the financial sector is relatively at its highest point. Looking at financialization in a developing country is then a relatively new venture and there is not a lot of literature available for this task.

The definition that is in use in this paper is that provided by Krippner (2005: 174) according to which financialization is a "pattern of accumulation in which profit-making occurs increasingly through financial channels rather than through trade and commodity production." In the paper titled "*The Financialization of the American Economy*" Greta Krippner presents systematic empirical evidence for the financialization of the US economy. The approach that Krippner (2005: 174) adopts is from Arrighi (1994). The advantage of this definition is that it is well-encompassing of the other approaches to financialization alluded to above in this chapter. Arrighi (1994) locates this turn in capitalism in the crisis of profitability of US firms in the 1970s, which was largely due to the militancy of labour and increased international competition. These firms confronted by these challenges resorted to withdrawing capital from production and ploughing it to the financial markets. Krippner (2005) approaches financialization by examining the sources of revenue for NFCs by doing this analysis she found that there is growing importance of portfolio income. By portfolio income Krippner (2005) means income that is accrued from interest, dividends and capital gains on investment. Through this method the author demonstrates that there has been financialization in the US economy especially for the NFCs. This has emerged to be one of the most prominent methods of proving financialization and most empirical studies done have adopted this approach.

The increased role of a shareholder in the firm has destabilised the management-labour balance and has reorganised it into being a management-shareholder balance (Lazonick and O'Sullivan, 2000). The lines between management and shareholder have also been blurred with most managers now being also shareholders which strengthens the influence of share ownership even further. Financialization then in this aspect has taken the workers out of the equation of accumulation; they have lost significantly their importance in the process of accumulation. Lazonick and O'Sullivan (2000) argue that there has been a shift from "retain and invest" to "downsize and distribute." This means that the profits are not reinvested into the operations of the firms but these are distributed amongst shareholders through issuing of dividends and buying back shares in order to increase financial value of the firm. This has ensured that the general trend of wage share has not been in line with the increase in profits that firms have been experiencing in this financialized era. This trend has major implications for the growing inequality seen globally and especially in South Africa. This then has major implications for employment in a financialized economy where the importance of labour deteriorates and that of finance increases. For a developing country like South Africa which already has high rate of unemployment this is a grave prospect of financialization. Therefore there is a need to discuss financialization of such developing economies. South Africa is at the forefront on the African continent for financial market development therefore there is a need to closely scrutinise this economy which is what this paper aims to do.

Stockhammer (2007) fleshes out five stylized facts that can be observed in a financialized economy based on the extensive research done on the US economy. The first of these is deregulation of the financial sector accompanied by the proliferation of new financial instruments (Stockhammer, 2007). Secondly, it is the liberalization of international capital flows which brings about increasing instability on the exchange rate market (Stockhammer, 2007). The third, and more general, is the shift to market-based financial system

(Stockhammer, 2007). Fourth, is the emergence of institutional investors as major players on the financial markets and the boom (and bust) on asset markets (Stockhammer, 2007). The shareholder value orientation accompanied by the changes in corporate governance (Stockhammer, 2007). Lastly, Stockhammer (2007) notes that there is increased access to credit by previously “Under banked groups” in society or there are changes in the real interest rate. What Stockhammer (2007) aimed to do in this paper was to investigate what can be termed as the post-fordist era of accumulation which is characterized by a finance-dominated accumulation regime and not through the trade and production of commodities. Stockhammer (2007) in his paper provides us with a blueprint for looking at the economy to check for the traces of financialization. But this is not to say that financialization affects different economies in the same way but these are the trends that one can be on the lookout for in the economy.

There has been research conducted in the developed economies on the effect of financialization on the volatility in the prices of commodities. The research culminated in an UNCTAD (2012) Policy Brief which argues that the nature of the information behind the commodity market has changed due to the dominance of the financial actors. The research is of special importance because it forms a direct link between the NFCs who produce and trade commodities and the financial sector. The policy brief points to a certain market distortion that is present in a financialized economy. “Because of these distortions, commodity prices in financialized markets do not provide correct signals about the relative scarcity of commodities. The distortions impair the allocation of resources and have negative effects on the real economy” (UNCTAD, 2012: 4). The UNCTAD (2012: 2) policy brief informs us how the exchange-traded derivatives on commodities have grown to be between 20-30 times more than physical production. These derivatives signal the growth of new financial instruments when the economy becomes financialized. Financial investors now account for 85% of commodity futures market participants, this is a huge leap considering the fact that these only accounted for 25% just in the 1990s (UNCTAD, 2012: 2). This shows how influential financial actors have become in the commodity markets this has major effects on the economies which are solely dependent on the trade of these commodities. These financial players exert a considerable amount of influence on the movements of the price level in the commodity market (UNCTAD, 2012: 2). There has been an observation of certain commodity market prices moving in tandem as those of the financial markets (UNCTAD, 2012; 2). One can see that this in not only the phenomenon that affect the developed countries exclusively now the playing field has widened. For economies like South Africa, and African economies generally, which are dependent on mining and oil this report has direct effect of the investments in this economies. The price volatility has made it difficult for long term investment in the mining and related industries. The planning horizon for the firms involved in these industries has become shorter which has far-reaching effects for the economy and socially and in terms of increasing employment in these firms. The first victims of this price volatility are labour through the restructuring processes and job losses. The results are the reason why research of this kind has to be conducted, in order to come up with rectifying measures to ensure employment level are retained or increased.

Financialization affect the real capital accumulation of the NFCs from the evidence from the advanced economies its effects are negative. Orhangazi (2008) demonstrates this for the American economy. Firstly Orhangazi (2008) defines financialization as an increase in the size and significance of financial markets and financial institutions in the modern macro economy. There is strong evidence that emerges from Orhangazi (2008) that the relationship between the NFCs and the financial markets has become deeper. This trend has also been observed in the South African context by Mohamed (2009) whereby the South African enterprises that require finance for investment would rather use their retained earnings or seek finance in stock markets than from the traditional financial institutions (banks). This trend, as observed by Mohamed (2009), has allowed the banking sector to turn its attention away from financing enterprises for investment in new projects towards short-term lending for consumption.

Financialization has then allowed for the transfer of NFCs' earning to the financial markets through various channels such as interest payments, dividend payment and stock buy backs (Orhangazi, 2008). The financialization of the NFCs symbolized the emergence of short-termism by the management of these corporations. There are two questions that Orhangazi (2008) is concerned with in his paper; firstly, does financial investment crowd out investment on the real assets of these firms? Secondly, do increased payments to the financial markets impede real investment by depleting the available internal funds?

The intuition behind Orhangazi's (2008) investigation is that when investment in financial assets offers higher returns than real investment projects then more internal funds will be channelled towards financial capital rather than in real assets. This is then the worrying trend that the literature is concerned with because this is a clear indication of the change in the accumulation process of capitalism.

The focus on the real investment is important for this paper because capital formation is central in determining employment levels as we have seen above, especially for the employment intensive sectors. So looking at the real investment of the NFCs is looking at the core of its employment creation ability and the financialization's effects in this regard are important to look at.

The next question the reader might ask is, even if financial investment has negative effects for real capital accumulation why does it matter? This question then takes us to a text by Stockhammer (2004) where financialization is discussed and linked to the slowdown in accumulation. The main hypothesis of this paper is "financialization contributed to the slowdown in accumulation since the golden age" (Stockhammer, 2004: 728). In order to advance his argument Stockhammer (2004: 728) argues that management adopted the preferences of the rentiers thus making NFCs more 'rentier-like.' This then places the management of the NFCs in a position where they have fewer growth-oriented priorities and choose to invest in the financial markets (Stockhammer, 2004: 728). Stockhammer (2004) argues that firms face a trade-off between growth and profits and when management priorities have been married to those of the rentiers firms choose profits over growth. This then leads to a change in investment behaviour. Empirical test were done in order to test the hypothesis using annual data for the business sector in for developed countries, USA, France, UK and Germany (Stockhammer, 2004: 739). The data supported the hypothesis in USA and France but not in Germany and in the UK financialization was proven but no slowdown in accumulation could be identified (Stockhammer, 2004: 739).

The common feature with all the authors reviewed above, on financialization, is the change in investment behaviour of the NFCs in a financialized economy. One can see that finance offers greater profitability results than traditional production and sale of commodities, in the short term anyway. Starting from the management-shareholder collusion right down to the volatility of commodity prices, investment in real capital is affected. In the next chapter this paper looks at the literature that suggests the financialization of the South African economy.

CHAPTER THREE

FINANCIALIZATION IN SOUTH AFRICA

Evidence that emerges from research conducted on South Africa seems to suggest that financialization has taken hold in the economy. There are various papers on this subject and the main proponents for this position provide credible data from South Africa institutions such as the Reserve Bank. The authors in this regard suggest that the post-apartheid adoption of neoliberal policies has had significant impact on the financialization of the South African economy. For example the liberalization of international capital flows was considered an important policy in order to deepen financial markets in the economy in order to attract foreign direct investment. But what actually transpired was that these flows took the form of portfolio investment which was in search for short-term financial gain as the country high interest rates. These flows have opened up the economy to the volatility associated with these short-term flows in times of financial crisis. This has been a dilemma that has faced the South African economy, as capital flight has risen to its highest levels. Mohamed and Finnoff (2005) argue that this has seriously curtailed the abilities of the economy to invest in long-term initiatives that might spur employment opportunities. The banking sector has seen phenomenal growth as a result of the capital account liberalization, but this growth has increased the extension of credit to households instead of businesses with a particular growth in mortgage lending. This has contributed to the rising levels of indebtedness of households and this is one characteristic that is observed in the financialized economies of the USA and the United Kingdom. This is the economy that we operate under which has raised the suspicion of it being financialized and a lot of work has been done, as it shall be seen below, with regards to establishing this fact. This section is dedicated to the evidence that emerges from the literature and the next section of the chapter will looks at how the literature argues for the financialization of the mining sector.

3.1 FINANCIALIZATION OF THE MEC

The post-1994 developments have allowed the Minerals and Energy Complex (MEC) to dominate the economy. The MEC is a historical and institutional analysis of the development of the South African economy, specifically its systems of accumulation, as conceptualized by Fine and Rustomjee (1996).

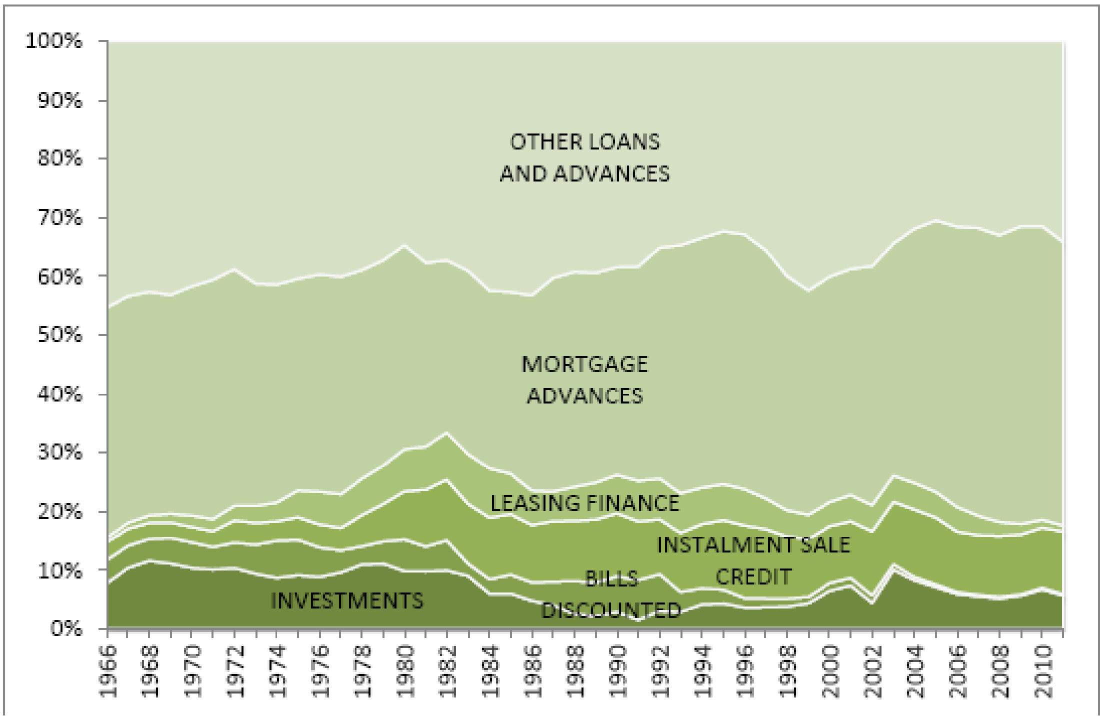
Fine and Rustomjee (1996) argue that the South Africa economy is organised in a manner such that the big mining conglomerates are at the centre of it. The development of the accumulation process and economic growth are intimately linked to the development of these big companies. From the discovery of the diamonds in Kimberly in the 1860s mining companies have assumed hegemony over the South African economy.

During the interwar phase the MEC sectors drove the economy, providing the needed surplus and allowing for the incorporation of Afrikaner capital (Fine and Rustomjee, 1996). *"The MEC provides an analytical description of historical industrial development in South Africa as skewed in favour of mining and related industries and the failure of the emergence of a diversified industrial base"* (Ashman et al, 2012: 8). The MEC is then a tale of failure of the economy which has resulted in the current problems the country is facing today in the form of structural unemployment and inequality. The high prices of Gold and energy in the 1970s resulted in a lack of consideration of an industrial strategy to diversify to sectors outside of the MEC (Ashman et al, 2012). Instead one saw a state-led expansion of gold and energy production that saw South Africa becoming the world's biggest gold producer (Ashman et al, 2012). The economic and social systems were organised so that they could serve the needs of the mining sector, the persistence of the migrant labour system in post apartheid South Africa is one case in point. The mining sector still claims a huge chuck of employment in the country and the 60% of export revenue is accrued from mining (FT, Sept 2013).

The mining and quarrying sector accounted for 8.8 per cent in 2011, but when including all upstream and downstream activities in this sector then the share of GDP increases to around 18% (Chamber of Mines, 2013). This is just an example that the MEC analysis still holds in South Africa even though other sectors have grown in significance in the recent years. From the evidence provided below, the financialized form of the MEC has not been able to increase the employment rate and equality. In fact there are strong reasons to believe that the financialization of the MEC has exacerbated inequality and unemployment in the economy. One of the reasons that is explored in this paper is the effect of financialization on employment and labour in general.

In South Africa currently the financial sector is one of the biggest growing sectors in the economy. Looking at it from that aspect one can say that finance in general has been growing in importance in the economy as its weight in the GDP has grown. According to the EIU (2007) report his sector has grown to be around 20% of GDP. This level of growth has been achieved besides the fact that 40% of the population receive no direct service from this sector (Ashman et al, 2012). This can be attributed to the high levels of inequality in South Africa, where a large percentage of the population has no access to income.

The employment figures in finance have also grown which makes sense but these numbers are quite meagre when compared to the growth levels of this sector. The financial sector has grown with the levels of indebtedness of the population; this is because the financial sector has moved away from financing business activity (investment) and has moved towards financing of household debt. Figure1 below shows credit extended to the private sector is almost 53% of all loans were to households (Ashman et al, 2013: 14). A significant part of those loans was mortgage finance which has fuelled house prices and monetary institutions are the financiers of household current consumption (Ashman et al, 2013: 14). These are the characteristics of financialization that have been observed in the developed economies from the literature reviewed earlier in this paper.



[Figure 1: Credit Extended to the domestic Private Sector (Ashman et al, 2013: 15)]

But the economy-as-a-whole analysis is the highest level of abstraction that is useful in capturing the significance of finance as a sector but does not capture the proliferation of financial investment that might be present in nonfinancial sectors of the economy. This is because in the traditional capitalist model NFCs are the centre of production of surplus (Ashman et al, 2013) and other sectors work in support in order to create a value-chain which will ensure that economies reap the maximum benefits.

It should be acknowledged that financialization is not a phenomenon that only began with the introduction of democracy. The ground for financialization was laid before the end of apartheid, with various policy movements towards the marketisation of the economy by the apartheid government. Ashman et al (2012: 4) believes that the process of financialization can be dated from 1985 from the process of eliminating capital controls. The De Kock commission was an important player in laying this ground. The De Kock commission's 1985 report was the most significant as it argued for the liberalization of the financial system. The report's advocacy for the market forces in efficient allocation of credit in foreign exchange has led to the figures seen above in figure 1 (Kantor, 1986: 57).

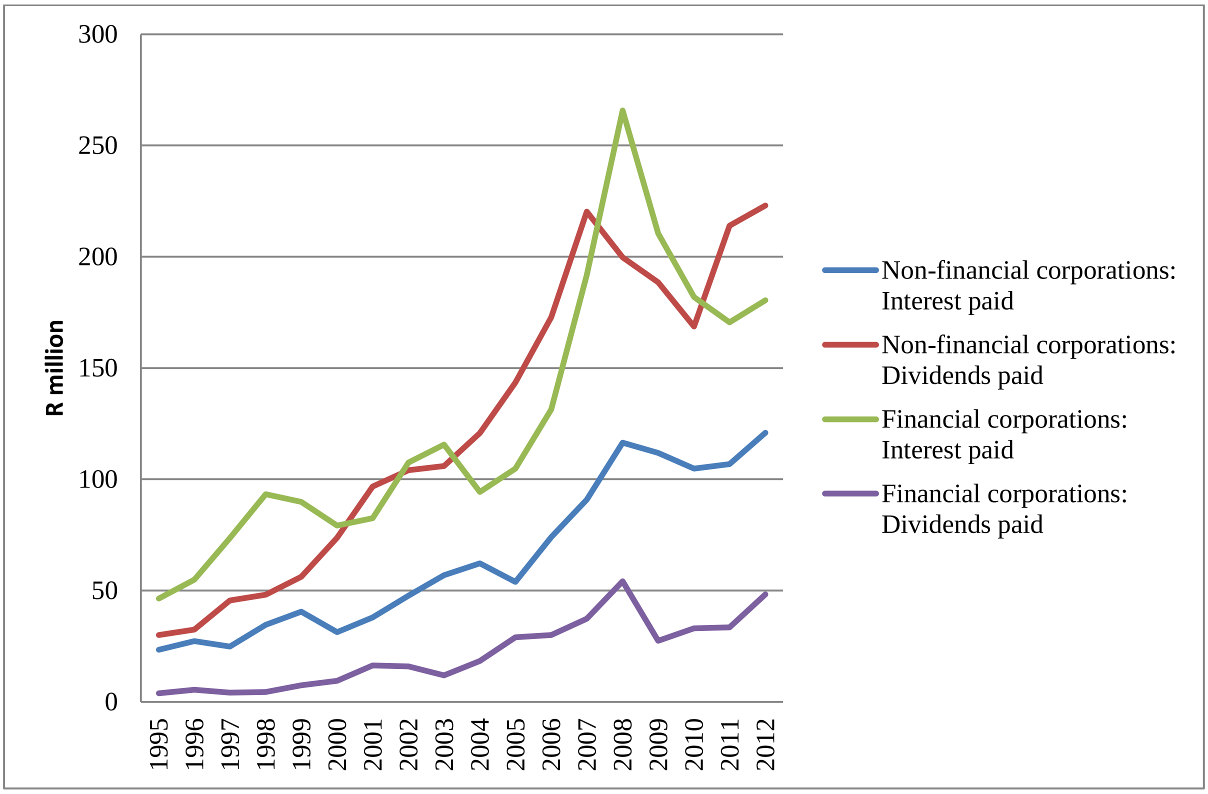
The post apartheid government took the baton from then onwards and implemented further policies to liberalize the financial markets. This is just to show the role of public policy is important in the process of financialization. Ashman et al (2012: 3) puts is very clearly: *"Financialization has been heavily driven by neo-liberal policies of opening up markets in general through new forms of state intervention (not the withdrawal of it) so private capital can prosper within existing and creating new markets."* And in the context of South Africa one knows very well that government's main preoccupation in the immediate post apartheid years was to ensure the ease of doing business in order to attract much needed FDI for domestic conglomerates. The government then let the domestic conglomerates to list abroad in order to raise capital to fund investment in South Africa. But what has transpired is that is outward acquisition and investment by these firms and this is backed by the numbers that indicate that between 1995 and 2004 total outward stock grew from 8.7 billion dollars to 28.8 billion dollars (Chabane et al, 2006: 559). This means that investment by conglomerates has been happening outside of South Africa more than inside. This goes against the intended results when these companies were allowed to list abroad in order to easily raise capital to invest in this country. There has not been a big acquisition by one of the big conglomerates within South Africa in recent years. Through restructuring, with is one of the main drivers of financialization, these conglomerates have actually been selling off their domestic assets in their quest to internationalize their operations and focus on their core business. The PWC (2012b: 11) corresponds with this view: "The major South Africa producers are rather looking to boost their production from resources in other countries." This has lead to lack of commitment towards reversing the trend of declining gold production in particular. What this has done is to exacerbate the negative effects of the MEC, as these companies divest in non-MEC manufacturing. This has had a contributory factor on the decline of the manufacturing sector in the post apartheid South African economy. As has been mentioned that these mining companies where the main producers of surplus during the post-war era thus allowing them to invest in other sectors. An example of this is the Anglo American which had vast investment interests even outside the MEC from printing and publishing through to owning Barlow Rand which was in the manufacturing sector (Ashman et al, 2013: 32). This then ensured that surplus created within the mining sector is invested in order to also boost other sectors in the economy.

Looking at figure 2 below one can see that the dividends paid by the NFCs have been rising significantly even though they took a knock during the crisis but they have managed to recover back to the pre-crisis levels. From around R35billion in 1995 to R225billion in 2012, that is exponential growth. What this graph really symbolises is the increasing pressure applied by the shareholders to companies in order to pay higher dividends every year. This story corresponds with the PriceWater Coopers Mine report for 2012 where they noted a growing “disconnect” between the CEOs and the shareholders (PWC, 2012).

The Report notes that shareholders have been demanding more shareholder return through capital discipline while on the other hand CEO are hoping to use the cash for investment in new capital projects (PWC, 2012: 5). This has resulted in the top40 mining companies not meeting their target of $120 billion in capital expenditure even though they had attained record levels of profits (PWC, 2012: 8). This story tells of a lack of trust that new projects will bring in more returns for these investors therefore they are demanding returns now. This also tells us the increasing importance of the financial activities in the NFCs as the focus has been on increasing the financial value of the corporation instead of increasing the demand for output being offered the firm. As has been alluded to above in this paper increasing financial is one of the major aspects of financialized economy increased by the influential role played by shareholders. This symbolized a change in the internal power structures of these firms and that is as a result of the destabilized management-shareholder balance with the managers increasingly becoming shareholders. This then ensures that even without desired growth of the firms dividends become an incentive. This is one step that points to the direction of financialization of the NFCs in South Africa. Looking at Krippner and her definition of financialization figure 2 fits the definition. Orhangazi (2008) also alludes to the feature of financialization where more funds are channelled towards dividends and interest payments therefore decreasing the available internal funds to be invested in the productive capabilities of these firms.

It is also important to note that the interest paid by the NFCs has also been on the rise. This is also an indication of the growing importance of finance. This is also a draining factor of the available internal funds that could be used investment into the productive capabilities.

Figure 2: Incomes Paid by Industry Type



(Mckenzie, 2013)

With the implementation of neoliberal policies in the post-apartheid era and the unbundling of the conglomerates has meant that there has been a "(domestic) focus on the productive, mining core and an emphasis on the internationalisation (and Financialization) of their operations" (Ashman and Fine, 2013a: 1). This means that finance has come back into the country as foreign investment but it's from these same conglomerates, this has ensured that these conglomerates have a hold on the government policy stance especially on exchange controls.

These developments have also led to the emergence of financial corporate groupings that possess an increasing amount of domestic power especially at the time that financialization of the economy has taken a stronghold (Ashman and Fine, 2013a: 1). This has meant that the post-apartheid economy has been dominated by capital flight, finance and foreign ownership (Ashman and Fine, 2013a: 1). These authors cite an example of Anglo American Platinum Corporation (Amplats) as an example of this restructuring in the economy. Amplats is a company listed in London and controls around 40% of platinum output globally (Ashman and Fine, 2013a: 1). One can see also how the unbundling has not resulted in increased competition in the mining sector; the same players are still playing a major role in the industry despite restructuring. The different is that they have now incorporated the small elite of BEE partners.

One can see that in a financialized economy business decision are geared towards exploitation of more profits from finance rather than the actual sale and production. These decision have affected investment behaviour of the firms through funds being transferred to the financial sector through dividend and interest payments and other financial instruments. This is why financialization literature is crucial for this paper because investment behaviour is crucial in the process of employment. In the next chapter these concepts are going to be explored in analysing the results of the South African mining sector.

CHAPTER FOUR

THE SOUTH AFRICAN MINING SECTOR

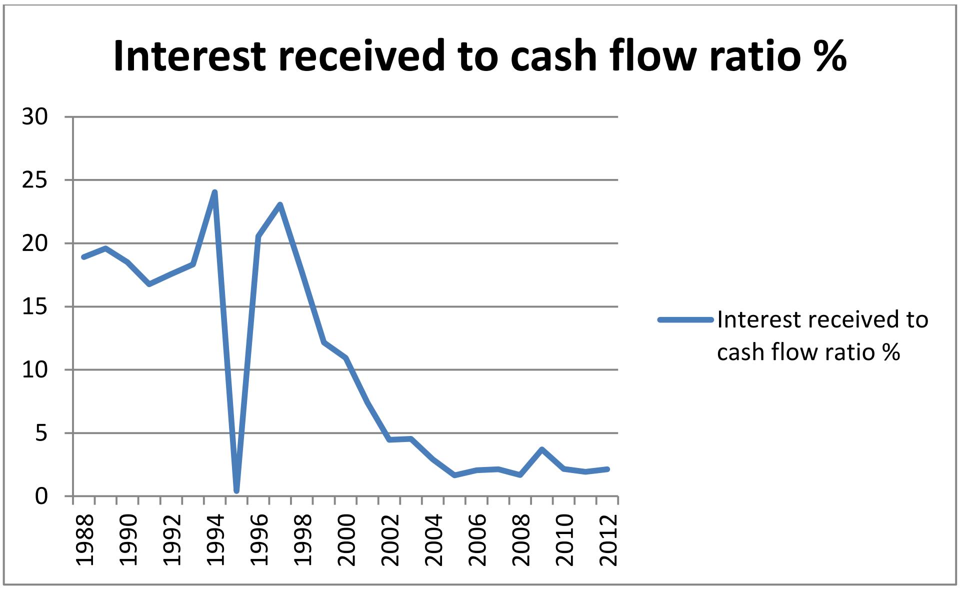
This section of the paper is there to investigate the significance of financial income in the profits of the mining sector in South Africa and then compare these to the real investment levels of this sector. The reason why this paper is focusing on this aspect of the mining sector is pick up trends in the investment behaviour of the companies and see is these correspond with the theoretical underpinnings alluded to above in this paper. This is done in hope that this analysis will add value to the debate on unemployment in this country in terms of policy.

The growth of income accrued from financial investment is considered to be another channel of financialization in the economy and it can be used in an analogous method adopted by Krippner (2005) in measuring the extent of financialization of American NFCs. Krippner (2005: 182) measures the significance of financial revenues of NFCs through the construction of a ratio comparing what she terms portfolio income to corporate cash flow. Portfolio income in this instance means “the total earnings accruing to non-financial firms from interest, dividends and realised capital gains on investment” and cash flow is a composition of profits plus depreciation allowance (Krippner, 2005: 182). Therefore this ratio reflects the relationship of the returns offered by the financial channels versus those from productive activities (Krippner, 2005: 182). Krippner (2005: 183) explains the rationale behind comparing portfolio income to corporate cash flow rather than comparison with profits: “the first (reason) is that portfolio income is a pure revenue stream, whereas profits are reported net-of-cost, making a comparison between the two is somewhat misleading.” Therefore instead of profits “what is needed is a measure of the total capital available to the firm, which is arguably what corporate cash flow captures” (Krippner, 2005: 183). The above description of Krippner’s methodology is important because this section of the paper is using this approach in order to examine financialization of the mining sector in South Africa.

The major challenge associated with using the above methodology is that reporting standards in respective countries are different therefore trying to put the information to exactly what is done with the US becomes a tricky task. Accordingly this paper then used interest income as a proxy for portfolio income in order to attain a ratio to cash flow; this is done because of data limitation such as that financial income is not labelled explicitly as such. These slight changes in the methodology are enough to ensure that we are able to trace a trend in the investment behaviour of the mining sector companies based on the significance of the interest received to cash flow. In order to make the case stronger we compare the trend we trace from the ratio to investment income in the sector, investment income was not included in the portfolio income category because of its ambiguity in terms of what exactly it constitutes; therefore in order not to compromise the study I chose to leave it out. But it is not income from the production and sale of commodities as it is reported separately. Cash flow here represents operating profit/loss plus depreciation and non-cash items (reported together) just as Krippner (2005) does in her methodology. Depreciation is added in order to ensure that an increase in the ratio is not attributed to the changes in the tax treatment of depreciation (Krippner, 2005: 184).

Figure 3 below shows the ratio of interest received to cash flow of the mining sector.[2]

Figure 3: Interest Received to cash Flow Ratio



[Own calculations from McGregorBFA data]

The first notable fact about the graph is the scale; this shows how significant interest received in the sector can be as a share of the profits. At its height interest received constituted as much as 24% of cash flow, this is a huge sum to be generated from savings. The interest received to cash flow ratio shows that the trend has been declining in the 2000s from the heights achieved in 1994. This means that there has been a decline in cash held temporarily in

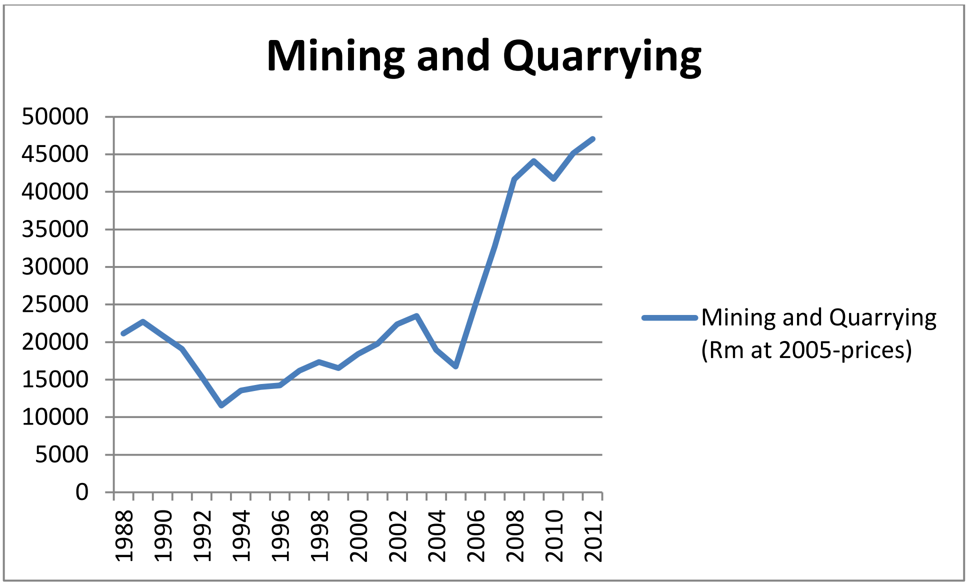
[2] The data used for this section is from McGregorBFA, from the aggregated income statement of the mining sector. This is one of the premier South African financial databases which is a trusted source for data.

savings accounts or certificates of deposits by South African mining companies. Before 1994 companies held a large amount of cash due to the fear of not knowing what policies the majority government might implement plus the state of emergency in the 1980s companies were not investing their income due to the unrest. From 1997 onwards the sector started experiencing a trend of a decline meaning that companies started reinvesting their income. With the implementation of neoliberal policies such as GEAR, big mining companies listed abroad and began investing abroad. Therefore it should be taken into account that a lot of cash left country legally and illegally through capital flight which has grown significantly in post apartheid South Africa[3] Ashman et al (2011b) estimated it to be more than 20% of the GDP. Capital flight/foreign investment then brings into the fore the global elements of financialization, and it is important that our analysis is not limited to South Africa. The diversification of the South African mining conglomerates out of the country led to a lot of capital leaving the country. But discoveries of more minerals especially with regards to iron ore and platinum in South Africa meant that in order to exploit these, investment needed to be made.

Figure 5 below displays a trend in gross fixed capital formation which is a proxy for investment in the real activities in the sector. In the period under review one has also seen that there has been an increase in gross fixed capital formation, which means that there has been growth in investment into real activities in the mining sector. The growth in gross fixed capital formation and a decline in interest received to cash flow ratio means that in the mining sector more money has been allocated towards investment in the physical assets of the firm such as machinery, equipment and construction works. Gross fixed capital investment is calculated based on 2005 prices.

Figure 4: Gross Fixed Capital Investment

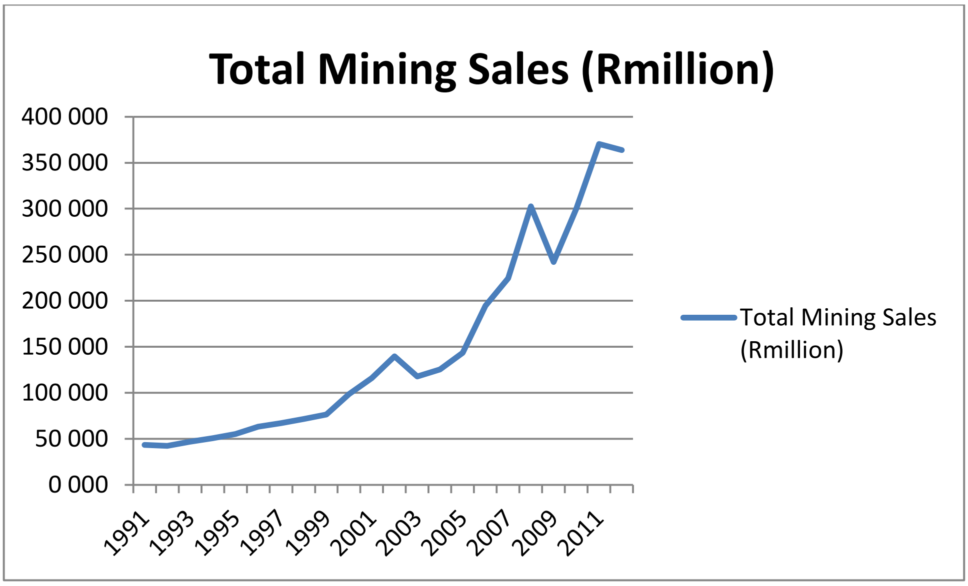
[3] For a more detailed account on capital flight see Mohamed and Finnoff (2005).



[Own calculations from Quantec data]

The increase in gross capital formation is accompanied by an increase mining sales within the same period. Figure 5 (Below) shows the trend in value of mining sales from 1991 till 2012. One can see that both indicators are on a steady rise with a bit of a hiccup between 2008 and 2009. A simple regression of these variables produces an R-squared of .95 which mean that sales can explain 95 per cent of the movement in gross domestic capital formation.

Figure 5: Total Mining Sales



[Source: Department of Mineral Resources]

If one then puts these result into context an example can be make with platinum which has sky-rocketed in term of demand internationally and locally therefore resulting in the increase in capital formation with the new mines that have entered into production the past 20 years. This increase has also been accompanied by a high rise in employment figures to the extent that platinum group metals are the biggest employer in the mining sector right now surpassing gold. Then one can say that the trend in gross fixed capital formation, driven by demand (sales), have influenced greatly the employment figures in the sector especially when looking at the biggest commodities within the mining sector. Therefore a straight answer to the third question is investment into capital stock has affected employment in the sector and one has to go down to commodity level in analysis in order to see the impact that investment into capital stock can have. Because at sector level one cannot get a balanced perspective with different commodities experiencing different levels of demand.

What emerges from the data is that interest received has had huge significance as a revenue stream for the mining companies during the transition to democracy. With the democracy maturing this revenue stream has declined significantly and investment in capital stock has increased as indicated by the gross fixed capital formation. The above trends then mean that financialization through the channel of increased significance of financial activities in profits of NFCs in the case of South African mining companies cannot be proven. In post apartheid South African mining the trends have been the opposite of those witnessed in American NFCs as documented by Krippner (2005). The significance of interest received has declined meaning that the argument for financialization through this channel might have held some traction in the 1980s and early 1990s.

It must be made clear that this does not mean that the South African economy is not financialized, as seen in the previous chapter other authors have made convincing arguments on financialization of the economy through other channels. The increase of profits being accrued from financial activities is not a be-all-end-all of financialization it is just one channel through which the economy might be financialized. This paper is only analysing one sector of the economy, other sectors might show the same or different results future research might be able to ascertain this. This paper is just a beginning of work that needs to be done in other sectors as well.

The research done by this paper is important in showing the importance of avoiding the blanket approach when it comes to financialization. Different sectors might react differently to the same problem and in different countries. One of the reasons for the above trends is the potential that a developing economy offers. In a mature economy such as the United States competition from developing countries has been increasing which is the reason of the increasing financial investments by the NFCs. Developing economies such as South Africa have huge potential in terms of reserves that still need to be exploited therefore mining companies are investing more of their money. The policy framework with regards to mining also offers certainty for companies, with minimal state involvement in the sector.

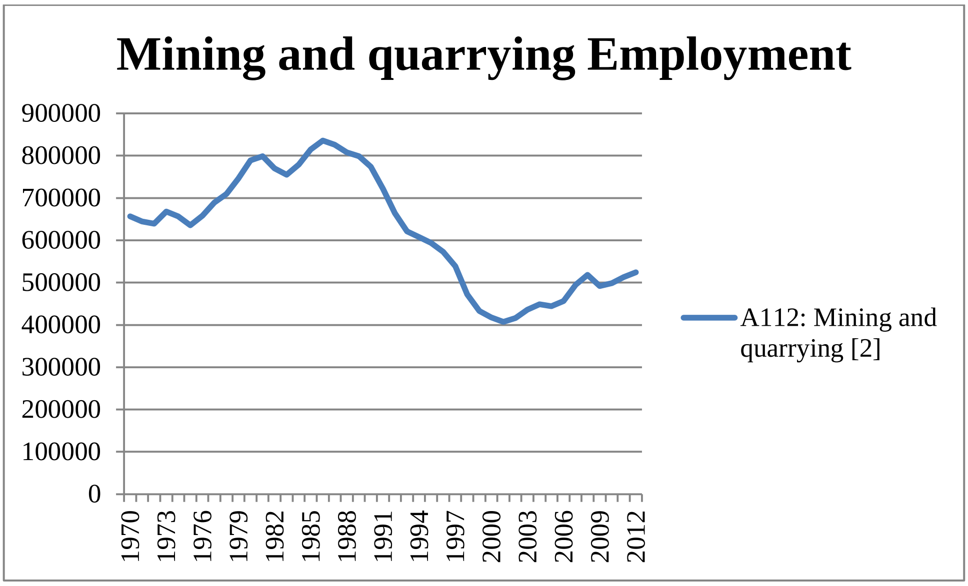
What the trends above tell us is that increasing financial at the expense of real investment might be a reactionary tool to exogenous factors that might be temporary rather than a symbol of fundamental economic change. This is especially true for South Africa because we can see that due to uncertainty mining companies invested less of their profits and the moment they felt that certainty they started investing their profits. It is understandable that for developed economies these trends that signal financialization might be more sustained/long-term because of the competition being offered by developing economies reflecting a geopolitical rearrangement of the global order which is a much more fundamental change than a change in government. Therefore for the US NFCs the change will be long-term in terms of investment in financial activities especially because this trend is accompanied by a mature financial sector which is highly innovative. It would have been interesting to have a longer period to analyse but due to data limitations that could not be done. With the current announcements of large scale retrenchments and growing labour militancy in the sector the current trend of investment might change very quickly.

The next section of this chapter will explore how the above trends compare with the employment in the sector.

4.1 EMPLOYMENT

Then what do the above trends tell us about employment? Well, when one compares figure 6 below displaying employment trends in the mining sector and figure 4, above in this chapter, displaying gross fixed capital investment one finds that there are similar in trends in the early 2000s. One observes a trend where gross fixed capital formation started to increase significantly in the early 2000s with a bit of a slump in 2005, employment trends also started to recover from a long declining slope and we saw an increase with also a bit of a slump in 2005.

Figure 6: Mining and Quarrying Employment



[Own calculations from Quantec data]

These correlating trends tell a story of a link between investment in capital stock and employment which is the same story that authors in our theoretical underpinning were telling. One can see that at the heights of financial investment employment began to decline as there was less investment in the capital stock. Financialization through increase in financial investment at the expense of real investment has negative implication for employment. And in the previous chapter we saw how labour is getting the short hand of the stick in terms of its share of income due to innovative incentive schemes for the managers.

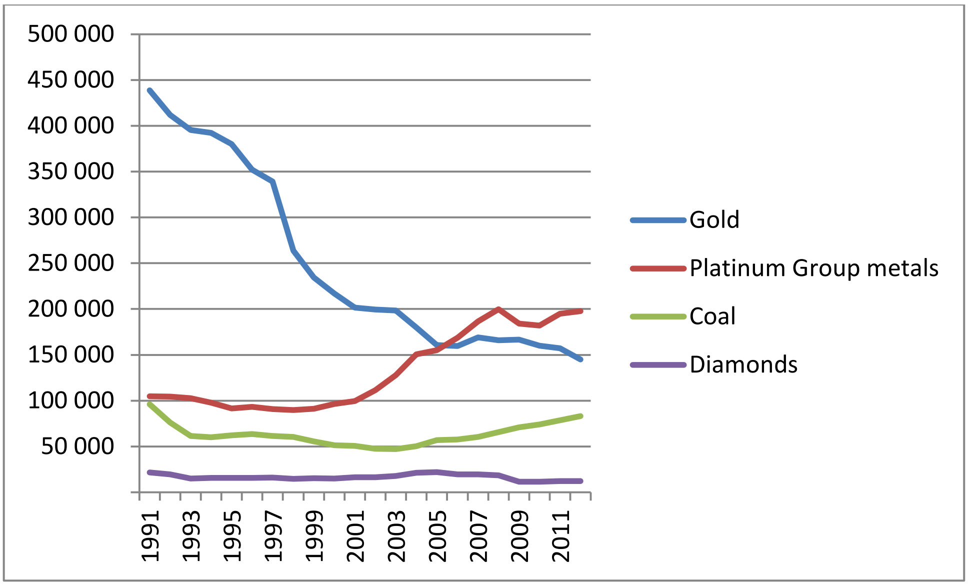
Regression Statistics	
Multiple R	0,513007
R Square	0,263177
Adjusted R Square	0,239408
Standard Error	132978,3
Observations	33

Table 1: Regression results of mining Capital formation and Employment

The regression of gross capital formation on employment produces an R-Squared of 0.26 (Table 1) which means that gross capital formation can explain 26 percent of employment. It is not a significant number. It is a modest value but shows that just over a quarter of employment is can be explained by gross capital formation. This is a significant number when looking at the variety of factors that can be contributory to employment. This is also because there are human factors that are at play in this equation. The decision to hire and fire is much more dependent on the shareholders and the board based on how they think the firms are going to perform in a specific economic circle. The response by the unions is also based on whatever the workers think they can get out of the negotiation process. This paper does not rely too much on the regression results but they do act as a guide. The theoretical link between employment and capital formation has been made powerfully by the authors who have written before this paper. Currently in South Africa arguments have been made to argue this point by the HSRC (2007) in their Mining Employment Scenario report that employment opportunities will be created more in scenarios where capital investment is made to develop mines. This whole report is based on the theory this paper is trying to propose which is more investment in the capital stock of these companies could lead to an increase in employment in the sector. This paper goes further in then specifying that also the nature of the capital investment shout be considered, in this case if companies are investing in capital equipment but with the aim of mechanisation of processes this could be detrimental to the employment rate in these companies (HSRC, 2007).

Employment trends in the mining sector are also dynamic in terms of commodities. An example of this is Gold and Platinum who were exhibiting totally opposite trends before the financial crisis of 2008 (HSRC, 2007). One can see from Figure 7 (below) that platinum group metals mining as a significant factor has definitely surpassed gold mining in terms of employment within the mining sector. Therefore this proves that commodities on their own possess unique factors that might influence employment trends in the sector. One example is platinum which has grew in value as more uses for it are discovered and with the burgeoning automotive sector in South Africa growth in demand for platinum is definitely not about to slow down. With gold on the other hand mining deeper into the Witwatersrand is becoming more expensive an exercise that gains are becoming less and less therefore employment will be on the decline.

Figure 7: Mining Employment by Commodity



[Calculated from Department of Mineral Resources data]

Stockhammer (2013) argues that in a financialized economy scales are tipped against workers "firms have gained more options for investing: they can invest in financial assets as well as in real assets and they can invest at home as well as abroad. They have gained mobility in terms of the geographical location as well as in terms of the content of investment" (Stockhammer, 2013: 8).

CHAPTER FIVE

CONCLUSION

"I conclude that the duty of ordering the current volume of investment cannot safely be left in private hands." (Keynes, 1936: 320).

This paper was tasked with answering three questions; to answer the first question the data suggested that there has not been an increase in financial income as a share of profits in the mining sector. This means that financialization through this specific channel has not occurred in the mining sector. The results presented by this paper shed interesting light on the relationship between real investment and financial income. The trends show that at the height of financial income real investment is low. At lower real investment rates and high financial income employment levels fell drastically in the sector. Looking at the data presented in this paper one can see a high correlation between sales and gross fixed capital formation. Sales are the biggest driver of capital formation in the sector; this capital formation has positive effect on the employment levels in the sector. This was demonstrated by the disaggregated data on commodities in the sector. The great example of this is the platinum metals where due to demand the employment levels have increased to surpass gold mining which was historically the biggest employer in the sector. This relationship is supported by the theory behind the mining scenarios produced by the HSRC (2007).

These are interestingly similar trends in this sector especially taking into consideration the theoretical underpinning of this paper. But these trends warrant further investigation which will ensure that more considerations are factored into the model. When one looks at the work of Ewa Karwowski (2012) who looks at the overcapitalisation of top 20 listed companies in the Johannesburg Stock exchange (JSE). Overcapitalisation is a ratio of cash and cash equivalents to total liabilities of the company, this is turn shows the extent to which companies (NFCs especially) prefer liquidity. This is done because NFCs what to minimize their risk, she finds that this behaviour by these firms impacts on credit extension by bank because normally these liquid assets are kept as deposits in the big banks. There are several reasons she sites for over-capitalisation of NFCs, one, is the precautionary motive (insurance against unexpected shortfalls), two, the transaction motive (ability to carry out spontaneous transactions) and thirdly the speculative/profit motive (limited opportunities for productive investment) (Karwowski, 2012). This piece of work is relevant to this paper because she counts big mining companies amongst the overcapitalised NFCs, e.g. Anglo American, BHP Billiton, Exxaro, Goldfield, Impala platinum, Rio Tinto and Highveld (Karwowski, 2012: 23). This is not a mining specific analysis but it comes with a lot of insight on the financial operation of the NFCs and how to look at these in all angles. This paper serves to show that deepening financial markets might not necessarily lead to "accelerated growth and dynamic development" as sometimes proposed by conventional economic theory (Karwowski, 2012: 26). Therefore there is a lot of research still needed to be conducted in this field of study and this paper is scratching on the surface of a large body of work. What the statistics in this paper provide us with, are the trends that are emerging in the mining sector. But there are various exogenous factors that could be at play here such as opening up of the economy in 1994.

In the above trends one saw how real investment in the sector has assisted halt the decline in employment levels. A more robust investigation in this regard could lead us to finding out what rate of new investment is needed to get the sector towards full employment. But what is important right now is to ensure that real investment in the sector is encouraged which will hopefully increase the employment levels in the sector. As theory tells us effective demand is crucial in determining the level of investment by firms, it is important for policy interventions that target effective demand for the output of the sector. Because the theoretical underpinnings of this paper suggest that there should be a active role played by policy in order to ensure that adequate levels of investment are there. This could be a subject of the further investigation on the topic. Hopefully this paper will initiate a discussion that will take the unemployment discussion to a higher level.

But the mining sector alone cannot increase employment what could be more a significant role the sector can play is creation of inter-sectorial linkages especially with upstream, side-stream and downstream industries. This is a large area of research on its own which does not fall under the scope of this paper but as a way of conclusion and point in moving forward it is a topic worth talking about. Therefore with more investment into the mining sector there is also growth that can be experienced by the industries which are supplying services and goods to the mining sector. Investment also in the sector could also lead to a growth in the downstream industries that used mining products as inputs. But these opportunities need a well-crafted government programme in order to be exploited because they automatic rarely in response to the investment in the mining sector. Commodity-based analysis needs to be done in order to get what employment opportunities with regards to linkages with other sectors can be exploited. In South Africa that topic is steadily gaining currency amongst policy makers. There are positive moves though within the mining sector and the fact that R33225 million of the R51569 million worth of known investment in newly committed projects in South Africa is for minerals procession projects (Department of Mineral Resources, 2009)

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